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George R. Hess

Forestry Department, North Carolina State University, Raleigh

C. Ashton Drew

Department of Marine, Earth, and Atmospheric Sciences, North Carolina State University, Raleigh

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Inquiry-Guided Learning Through Collaborative Research

George R. Hess¹ and C. Ashton Drew²

ABSTRACT: In the natural resources, graduate work tends to be undertaken by individuals. Graduate students need more experience working collaboratively, which is how complex natural resources issues are approached in a professional environment. A collaborative research course is designed to provide that experience. The essence of the approach is to build a small team of advanced graduate students and lead them as peers in a collaborative research project addressing a complex and unsolved problem. A successful course combines six key ingredients: (1) technical and professional development objectives; (2) a real-world, controversial topic; (3) real-world products; (4) strong collaborators; (5) a common foundation; and (6) open channels of communication. The technical and professional development objectives are inextricably linked with the product of the course. Collaborative research is about organizing the efforts of people with diverse skills to produce results. Technical objectives define the subject and nature of the product, while the process of creating the product determines professional development objectives. A controversial topic attracts student interest and ensures a diversity of perspectives. The instructor serves as team leader and is responsible for quickly providing a common foundation to prompt further inquiry, guiding team members through decisions, removing obstacles, and facilitating connections with other experts. Students have responded positively to this approach. When asked “What was the most important thing you learned in this course?” students focused on professional development. They highlighted the value of working on a real problem, learning how to collaborate with peers, creating a tangible product, and beginning to network with other professionals. A complete description of this teaching approach will appear in Hess and Drew (2004).

LITERATURE CITED

Hess, George R. and C. Ashton Drew. 2004. Inquiry-guided learning through collaborative research. In Lee, Virginia S. Teaching and Learning through Inquiry: A Guidebook for Institutions and Instructors. Stylus Press, Sterling VA, expected Fall 2004.

¹Forestry Department, North Carolina State University, Raleigh, NC 27695-8002, 919.515.7437, george_hess@ncsu.edu

²Department of Marine, Earth, and Atmospheric Sciences, North Carolina State University, Raleigh, NC 27695-8208, cadrew@ncsu.edu